Lake Erie Harmful Algal Bloom Bulletin

08 July, 2019, Bulletin 03

Analysis

Satellite imagery from 7/5 indicates that cyanobacteria is present in Lake Erie, generally at low concentrations in Maumee Bay and north of Brest Bay. Recent sampling (7/1) shows that measured toxin concentrations are below detectable limits throughout the bloom extent. A cyanobacteria bloom of *Planktothrix* is present in Sandusky Bay. No other blooms are present in Lake Erie.

Forecasts

Winds forecast (5-18 kn) Monday through Thursday (7/8-11) will create the potential for mixing and promote southeast movement of surface *Microcystis* concentrations. –Jima, Davis

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: *http://publicapps.odh.ohio.gov/beachguardpublic/*
Ohio EPA's site on harmful algal blooms: *http://epa.ohio.gov/HAB-Algae*
NOAA's GLERL provides additional HAB data here: *http://www.glerl.noaa.gov/res/HABs_and_Hypoxia*

The images below are "GeoPDF". Please visit https://go.usa.gov/xReTC for instructions on viewing longitude and latitude.

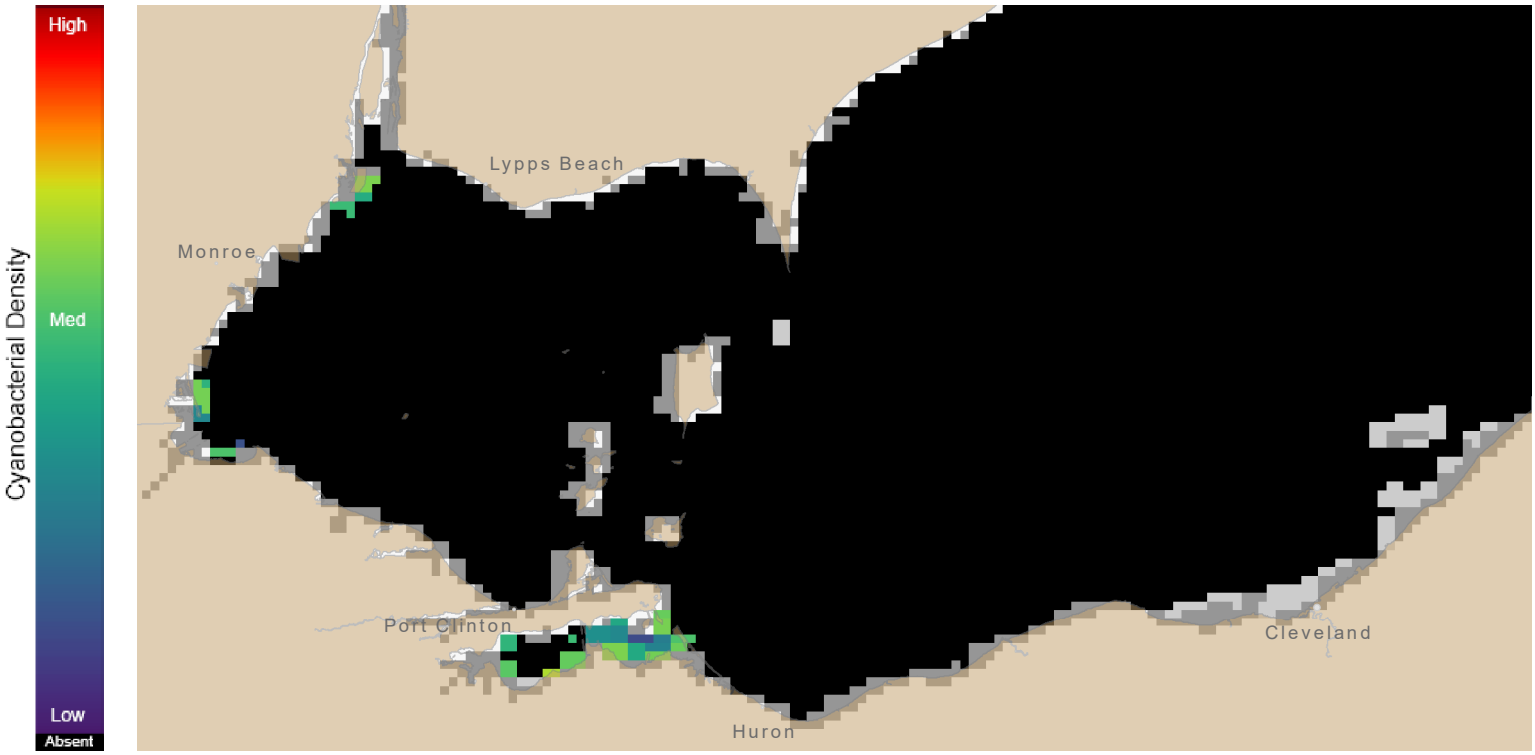


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 05 July, 2019 at 11:48 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

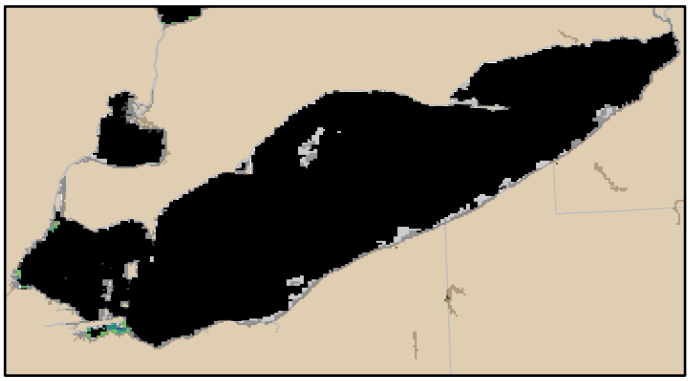
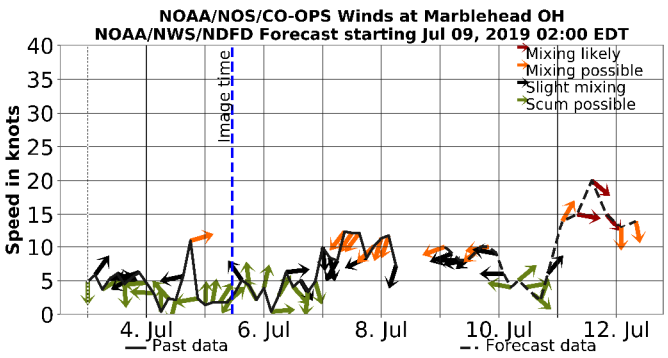


Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 05 July, 2019 at 11:48.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: https://tidesandcurrents.noaa.gov/hab/lakeerie.html

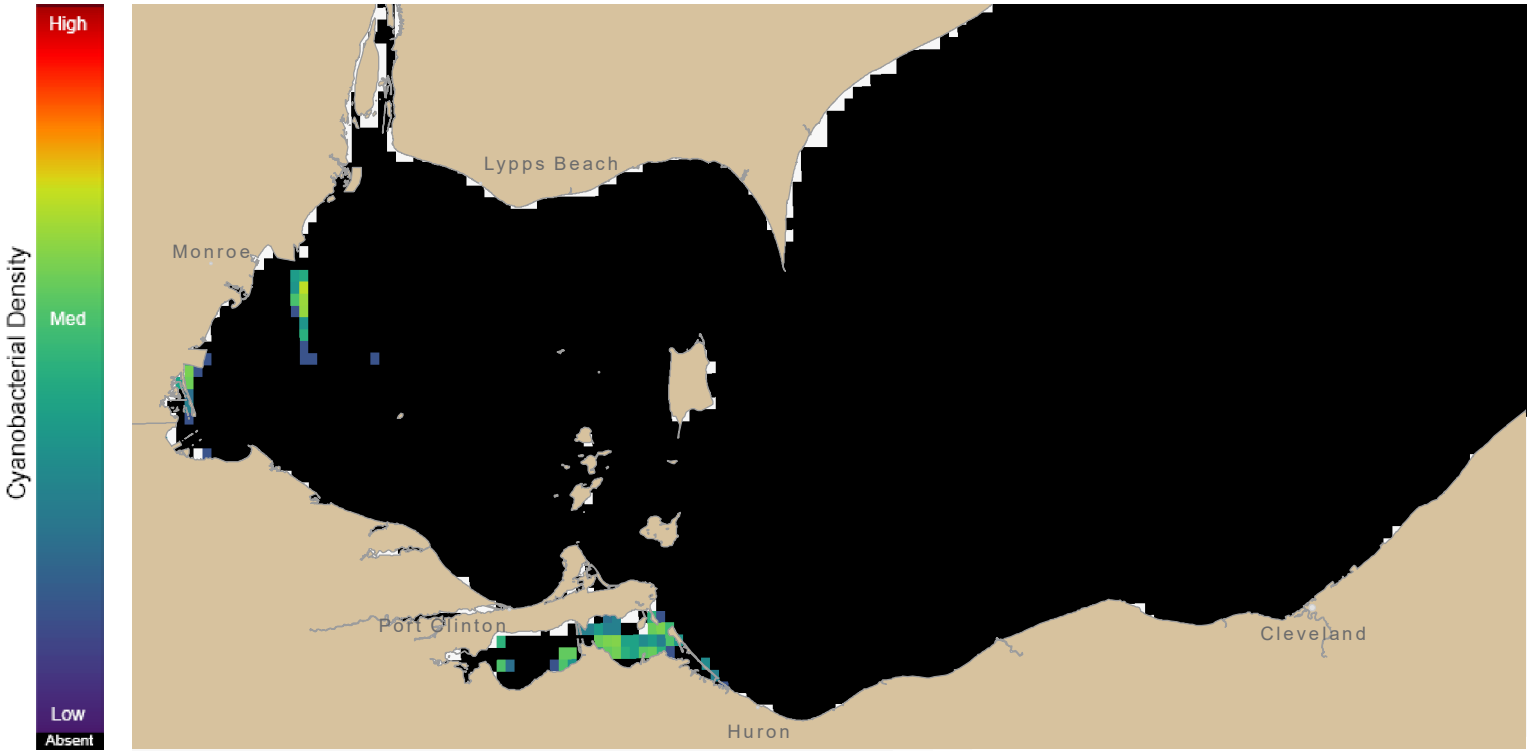


Figure 3. Nowcast position of bloom for 08 July, 2019 using LEOFS modelled currents to move the bloom from the 05 July, 2019 image.

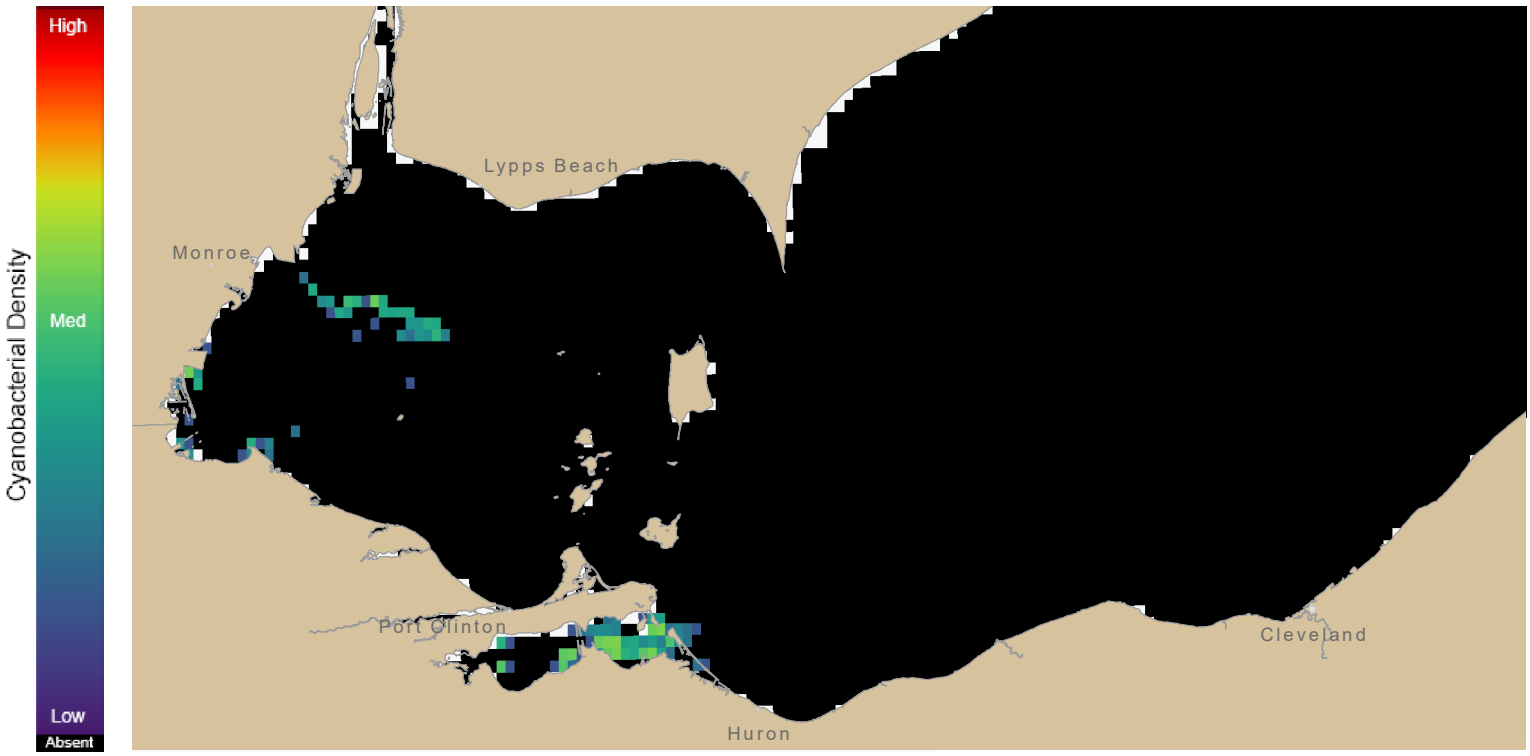
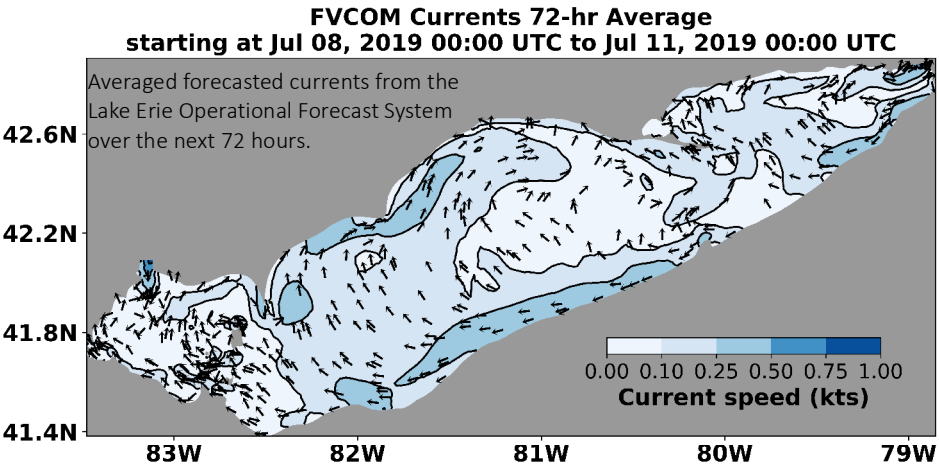


Figure 4. Forecast position of bloom for 11 July, 2019 using LEOFS modelled currents to move the bloom from the 05 July, 2019 image.



For more information and to subscribe, please visit the NOAA HAB Forecast page: https://tidesandcurrents.noaa.gov/hab/lakeerie.html